

Thermo Scientific Barnstead GenPure water purification system

The Barnstead GenPure system delivers ultrapure 18.2 M Ω .cm water with consistent quality for the most demanding and sensitive applications.



APPLICATIONS INCLUDE:

Molecular Biology and Microbiology

- Cell and tissue culture
- PCR, DNA sequencing
- Electrophoresis

Analytical Chemistry

- HPLC
- GC, GC-MS, ICP-MS, AA
- TOC Measurements, IC

All GenPure systems exceed international standard ASTM Type I, ISO 3696 Grade 1, ASTM D1193 and CLSI-CLRW.

Integrated feed water monitoring

- An additional measuring cell monitors feed water conductivity. Any exceeding of the limiting value is immediately displayed maximizing cartridge life

Online TOC measurement with UV intensity monitoring

- Real-time TOC monitoring for continual measurement of organic substances present in the water
- Continuous monitoring of UV intensity removes the risk of false TOC values due to diminished UV intensity
- Fault message alerts user when the UV lamp intensity is no longer sufficient for accurate TOC measurements

UV Photo-oxidation 185/254 nm

- High performance UV assembly reliably reduces the content of microorganisms and their metabolites
- UV oxidation also reduces organic compounds in the water to ultra-low levels

Ready-to-use

- Feed water pressure switch, wall bracket, UV lamp, ultrapure cartridge, sterile filter, all included with one part number

Measurement of conductivity/resistivity

- Conductivity cells are carefully calibrated prior to each measurement via built-in reference resistance with cell constants at 0.01 cm⁻¹
- Temperature measurements are made by a platinum chip sensor with $\pm 0.1^{\circ}\text{C}$ accuracy

Quick-connect cartridge replacement

- Aquastop quick-connect capability enables cartridge replacement within seconds even mid-operation

GLP-compliant documentation

- Real-time clock and code-protected operating system prevents unauthorized changes to system settings
- RS-232 interface with adjustable send-interval for safe data transfer of all measured data, faults, date and time to a PC computer or log printer
- Digital microprocessor control automatically monitors and stores faults from the last four weeks
- USP-compliant conductivity measurement with temperature compensation can be switched on or off

Tilting control panels for easy viewing

- Ergonomically designed controller tilts for optimal key pressing and easy readability
- Illuminated four-line alpha-numeric display

basic configuration

with options to meet your needs

Quick Look Comparison						
	GenPure system	GenPure UV system	GenPure UF system	GenPure UV/UF system	GenPure UV - TOC system	GenPure UV/UF - TOC system
Applications	AA, IC, ICP, standard buffer	Inorganic and organic trace analysis, HPLC, ICP-MS, IC, TOC analysis	Microbiology, IVF, monoclonal antibodies	Molecular biology, PCR, DNA, monoclonal antibodies, cell culture media	Chemical analysis (trace analysis, HPLC, IC, ICP-MS, TOC measurements)	Biosciences (cell and tissue culture media, PCR, DNA, monoclonal antibodies)
Resistance at 25°C, MΩ.cm	18.2	18.2	18.2	18.2	18.2	18.2
Conductivity, µS/cm	0.055	0.055	0.055	0.055	0.055	0.055
TOC, ppb	5-10	1-5	5-10	1-5	1-5	1-5
RNase, ng/ml	n/a	n/a	n/a	<0.003	n/a	<0.003
DNase, pg/µl	n/a	n/a	n/a	<0.4	n/a	<0.4
Bacteria, CFU/mL	<1	<1	<1	<1	<1	<1
Particles, 0.22 µm/mL	<1	<1	<1	<1	<1	<1
Endotoxins, EU/mL	n/a	n/a	<0.001	<0.001	n/a	<0.001
TOC monitor	n/a	n/a	n/a	n/a	standard	standard
Flow rate, L/min	Up to 2	Up to 2	Up to 2	Up to 2	Up to 2	Up to 2



Thermo Scientific Barnstead GenPure water purification system (continued)



GenPure systems feature tilting control panels for optimal viewing



UV intensity monitoring provides superb reliability



Easy cartridge replacement

Feed Water Requirements*	
Source	Potable tap water, pretreated by reverse osmosis, ion exchange or distillation
Feed water conductivity, µS/cm	< 2
TOC, ppb	max 50
Bacteria count, CFU/mL	< 100
Turbidity, NTU	< 1.0
Temperature, °C	2-35
Pressure, psi (bar)	1.4-87 (0.1-6)

* Please see user manual for complete list of feed water requirements

Product Specifications					
Flow rate	Operating pressure min/max	Electrical requirements	Power consumption	Feed water connector	Dimensions W x D x H in (mm)
up to 2 L/min	29-87 psi (2-6 bar)	90-240V, 50/60Hz	0.1kW	¾" NPT	14.6 x 13 x 24.2 (372 x 330 x 615)

System Options	GenPure	GenPure UV	GenPure UF	GenPure UV/UF	GenPure UV - TOC	GenPure UV/UF - TOC
GenPure system* All systems include a wall bracket, ultrapure polisher cartridge, sterile 0.2 µm filter, pressure regulator, UV lamp and/or ultrafilter where applicable	50131211	50131243	50131235	50131217	50131229	50131256
Optional Accessories						
Stainless steel DI cartridge, DI 1500 Required only when feed water does not meet feed water requirements. Prolongs system cartridge life. For new installations, 04.1690 is a required hose kit to adapt cartridge to system.	02.1500	02.1500	02.1500	02.1500	02.1500	02.1500
Printer Utilizes RS-232 interface for safe documentation of all measured values and faults with date and time in compliance with GLP-guidelines	120V, 50/60Hz	AY1137X1	AY1137X1	AY1137X1	AY1137X1	AY1137X1
	230V, 50Hz	09.2207	09.2207	09.2207	09.2207	09.2207
Disinfection cartridge Reusable cartridge needed to clean the water purification system.	09.2201	09.2201	09.2201	09.2201	09.2201	09.2201
Storage reservoir, 30 L, to feed system Polyethylene tank, opaque to light. 23.5 x 14.9 in (598 x 380 mm), H x W. Wall mount accessory is 06.5015	06.5038	06.5038	06.5038	06.5038	06.5038	06.5038
Storage reservoir, 60 L, to feed system Polyethylene tank, opaque to light. 35.9 x 14.9 in (912 x 380 mm), H x W. Wall mount accessory is 06.5016	06.5068	06.5068	06.5068	06.5068	06.5068	06.5068
Replacement Consumables						
Ultrapure polisher cartridge	09.2005	09.2005	09.2005	09.2005	09.2005	09.2005
Sterile filter, 0.2 µm	09.1003	09.1003	09.1003	09.1003	09.1003	09.1003
Ultrafilter	n/a	n/a	50133980	50133980	n/a	50133980
UV lamp	n/a	09.2002	n/a	09.2002	09.2002	09.2002
Cleaning solution	Europe/ Asia Pacific	09.2202	09.2202	09.2202	09.2202	09.2202
	North America/ Latin America	CMX25	CMX25	CMX25	CMX25	CMX25

